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Title of Book: *Environment and Development*



ENVIRONMENT

AND

DEVELOPMENT

(An Integrated Approach)

Editors

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Kripa Drishti Publications, Pune.

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3. Traditional Shifting Agricultural Systems Practiced by the Idus in Upper Dibang Valley District of Arunachal Pradesh, India

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Abstract:

Upper Dibang Valley district of Arunachal Pradesh shows two types of *jhums* as bamboo forest derived and grassland-derived *jhums* were prevalent. The agronomic yield was higher in bamboo forest-derived *jhum* rather than the grassland-derived *jhum*. The yield of different crops declined markedly over the cropping years under different types of *jhums* particularly in bamboo forest derived *jhum*. The yield increased in the second year of cropping compared to that of the first year in grassland-derived *jhum* due to better crop management practices followed in second year. The use *Fagopyrum cymosum* in the first year cropping mainly for the improvement of grassland-derived *jhum* was commonly practiced facilitating growth of other crops in this soil in the subsequent years. Due to abundance of grasses in this area the tribes particularly the Idus adopted the grassland-derived *jhum*. The adoption of grassland derived *jhum* decreased the percentage of forest destruction, increased the sustainable use of local natural resources efficiently and indirectly saves the ecology, environment and nature of this region.

Keywords: Shifting agriculture, bamboo forest-derived *jhum*, grassland – derived *jhum*, mixed cropping, soil fertility

3.1 Introduction:

The state of Arunachal Pradesh is characterized by 8 forest types like subtropical broad leaved, subtropical pine, temperate broad leaved, temperate conifer, sub alpine scrubs, alpine pastures, bamboo brakes and grassland. It has spare population of approximately 10, 91,200 due to location disadvantages, like the difficult terrain and lack of communication means. The Upper Dibang Valley district is one which is very far away and poorly communicated with state capital Itanagar. The main inhabitants in this district are the *Idus* tribe who belong to the Mongoloid race. Great altitudinal variation with temperature, relative humidity, and high annual rainfall represents distinct types of forest vegetation in the lower parts as sub-tropical to temperate pine, bamboo forests and grass land where as in the upper part leads to snow clad peaks, glacial lakes and traditionally have two types of subsistence agricultural systems, slash and burn agriculture, locally known as *jhum* and rice cultivation in the valley.

Recently, Scientists have started looking at subsistence agriculture or traditional agriculture as a one with high productive efficiency.